WHAT IS CLAIMED IS:

1. A method for depositing a low dielectric constant film, comprising:

introducing a siloxane comprising two or more silicons and four or more methyl groups bonded to the silicons into a processing chamber;

introducing at least one oxidizable chemical comprising a member selected from the group consisting of tertiarybutyl, tertiarybutoxy, furfuryl, furfuryloxy, and neopentyl into the processing chamber;

reacting the siloxane and the at least one oxidizable chemical with an oxidizing gas at a temperature that retains the member in a conformal layer; and

annealing the conformal layer at a temperature sufficient to convert the member to dispersed voids.

2. The method of claim 1, wherein the at least one oxidizable chemical comprises two or more members selected from the group consisting of tertiarybutyl, tertiarybutoxy, furfuryl, furfuryloxy, and neopentyl.

3. The method of claim 2, wherein the at least one oxidizable chemical is a furfuryl ether.

4. The method of claim 3, wherein the furfuryl ether is selected from the group consisting of tertiarybutylfurfuryl ether and neopentylfurfuryl ether.

5. The method of claim 1, wherein the at least one oxidizable chemical comprises silicon.

6. The method of claim 5, wherein the at least one oxidizable chemical is a silane.

7. The method of claim 6, wherein the silane is dimethylfurfuryloxy silane.

8. The method of claim 5, wherein the at least one oxidizable chemical is a

disiloxane.

9. The method of claim 8, wherein the disiloxane is selected from the group consisting of 1,3-dimethyl-1,3-ditertiarybutyl disiloxane and 1,3-dimethyl-1,3-ditertiarybutoxy disiloxane.

10. The method of claim 1, wherein the at least one oxidizable chemical is 1,1-ditertiarybutylethylene.

11. The method of claim 1, wherein the siloxane is selected from the group consisting of 1,1,3,3-tetramethyldisiloxane, 1,3,5,7-tetramethylcyclotetrasiloxane, and octamethylcyclotetrasiloxane.

12. The method of claim 11, wherein the at least one oxidizable chemical is tertiarybutylfurfuryl ether.

13. The method of claim 11, wherein the at least one oxidizable chemical is 1,1-ditertiarybutylethylene.

14. The method of claim 11, wherein the at least one oxidizable chemical is 1,3-dimethyl-1,3-ditertiarybutyl disiloxane.

15. The method of claim 11, wherein the at least one oxidizable chemical is 1,3-dimethyl-1,3-ditertiarybutoxy disiloxane.

16. The method of claim 11, wherein the at least one oxidizable chemical is dimethylfurfuryloxy silane.

17. The method of claim 11, wherein the at least one oxidizable chemical is neopentylfurfuryl ether.

18. The method of claim 1, further comprising depositing a silicon carbide layer

on the conformal layer prior to the annealing the conformal layer.

19. A low dielectric constant film produced by a method for depositing a low dielectric constant film, comprising:

introducing a siloxane comprising two or more silicons and four or more methyl groups bonded to the silicons into a processing chamber;

introducing at least one oxidizable chemical comprising a member selected from the group consisting of tertiarybutyl, tertiarybutoxy, furfuryl, furfuryloxy, and neopentyl into the processing chamber;

reacting the siloxane and the at least one oxidizable chemical with an oxidizing gas at a temperature that retains the member in a conformal layer; and

annealing the conformal layer at a temperature sufficient to convert the member to dispersed voids.

20. A computer storage medium containing a software routine that, when executed, causes a general purpose computer to control a deposition chamber for depositing a low dielectric constant film, comprising:

introducing a siloxane comprising two or more silicons and four or more methyl groups bonded to the silicons into a processing chamber;

introducing at least one oxidizable chemical comprising a member selected from the group consisting of tertiarybutyl, tertiarybutoxy, furfuryl, furfuryloxy, and neopentyl into the processing chamber;

reacting the siloxane and the at least one oxidizable chemical with an oxidizing gas at a temperature that retains the member in a conformal layer; and

annealing the conformal layer at a temperature sufficient to convert the member to dispersed voids.